



NEW TANKS RULES

Updated June 2016

dnr.mo.gov/env/hwp/ustchanges.htm

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July 1, 2017– New Changes for New Systems

If you install a new tank, new piping and/or a new dispenser after July 1, 2017, you will have a new set of requirements to follow:

- ⇒ Double-walled systems
- ⇒ Containment sumps
- ⇒ Post-installation testing
 - ☑ Tanks
 - ☑ Piping
 - ☑ Sumps
 - ☑ Spill buckets
 - ☑ Overfill equipment
 - ☑ Release Detection Equipment



Secondary containment is simply a double-walled tank, double-walled piping, and containment sumps, with interstitial monitoring. Interstitial monitoring can be a sensor between the walls of the tank, between the walls of the piping and/or in the liquid-tight containment sumps.

New tanks must be double-walled and have tank top sumps. If you install new piping or replace more than 50 percent of piping, all piping must be double-walled with tank top *and* dispenser sumps (this is tank system specific and does not necessarily apply to the entire site). If a dispenser and *all* the sub-dispenser piping and fittings are replaced, a sub-dispenser containment sump will be required.

Once containment sumps are required, they must be maintained, repaired, kept clean, free of liquids and tested (see page 2).

Existing tank systems will be 'grandfathered' in, unless piping or dispenser replacement occurs as described above. Existing containment sumps do not require routine testing.

Operator Training due July 1, 2016! What do I need to do?

- 1) Class A/B Operator: Take Missouri's online class or the test only option, if you are not currently certified by an adjacent state (excluding Nebraska).
- 2) Provide your documentation upon request to the department or the Missouri Petroleum Storage Insurance Fund (Fund). For reciprocity from the department, the certificate must be state-issued or accompanied by a statement from the adjacent state's agency that it was approved by the state.
- 3) For Class C operators, both the department and the Fund appreciated your concerns with the burden of paperwork that could be attached to this requirement. In an attempt to minimize the documentation associated with Class C **(CONTINUED ON PAGE 4)**

Updated Regulations

Due Jan. 1, 2020 – Test in 2019!!

Many of the new testing requirements for existing facilities have the first test due no later than Jan. 1, 2020. What that means for you, though, is the first test is actually due in 2019. Some of these tests, like the overfill prevention equipment test, may require extra effort, concrete to be broken and repairs. Do not wait until December 2019. Schedule early and plan ahead.

- ☒ Spill bucket tested
- ☒ Overfill equipment inspected
- ☒ Release detection equipment inspected or tested
- ☒ First walkthrough inspections performed
- ⇒ Monthly
- ⇒ Annual (every manway and dispenser)

Spill Bucket and Containment Sump Testing

10 CSR 26-2.030 and 10 CSR 26-2.036

The Environmental Protection Agency (EPA) regulation changes require testing of spill basins, as well as testing of any *quired* containment sumps (see above). Frequency of the testing depends on the system (interstitial monitoring requires double-walls):

Spill basins	Containment sumps
Monitor or Test? Frequency	Monitor or Test? Frequency
Interstitally Monthly	Interstitally Annually
OR	OR
Tightness Test Every 3 years	Tightness Test Every 3 years

Spill buckets and containment sumps may be tested using a NWGLDE certified method (www.nwglde.org) OR the Petroleum Equipment Institute's Recommended Practice (PEI RP) 1200-2012.

Outlined below are just few of the steps (please note, this is not a complete edition of the RP) and may not be used as the protocol:

- ✓ Check the liquid level in the back-fill
- ✓ Close boots and remove sensors
- ✓ Fill sump or spill basin
- ✓ Test for one hour
- ✓ If the water level change is less than 1/8", the equipment PASSES



The proposed regulation change would eliminate field applied repairs (used alone, not as sealant as part of a pre-fabricated spill-liner kit).



No More Field-Applied Repairs

Some spill basin manufacturers are now making a double-walled spill basin. If the inner spill bucket fails, it can be replaced without breaking concrete. Some of these spill buckets also come with special ports to allow vacuum testing of the spill basin's integrity, instead of having to use the "water test" method described above.



Picture courtesy of Franklin Fueling

The Manufacturer Double-Wall Kit

The proposed regulation would allow liners that are manufactured specifically for spill basins to be inserted into a spill bucket and then sealed. The final system must be tested to demonstrate the finished product is leak-tight.

The Insert

Spill basin repairs have long been a topic of debate. With the new spill bucket testing requirements, establishing what is and is not an acceptable repair for a spill basin seems warranted. Field applied epoxies, caulks and other "bubble-gum" repairs do not typically bond or adhere well, and fail rather rapidly. These repairs are not permanent. Per EPA, one leaking spill bucket can result in 195 tons of contaminated soil in a year.

Spill Basin – To Repair or Not To Repair? 10 CSR 26-2.030

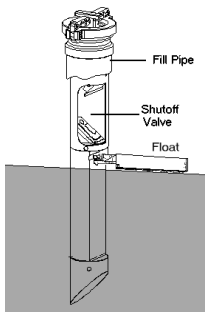
“To Do” List for 2019

Overfill Prevention Equipment Testing

10 CSR 26-2.030

The EPA rules also require tests or inspections of the overfill prevention equipment every **three** years. The three year check must verify all parts of the overfill prevention device still move freely, will still activate at the appropriate level and still function as designed. This test may follow PEI RP 1200-2012.

For most flapper valves and ball float valves, inspection will require removal from the tank system. If they are corroded in place, the riser may have to be cut, concrete replaced, and risers replaced for the inspection to be completed. In at least one state that has already implemented this requirement, the failure rate was over 40%. Please plan ahead.



If the ball float valve fails inspection, it must be replaced with an alarm or a flapper valve (in Missouri, ball float valves have been prohibited as overfill devices in *new* systems since December 2011.)

Please note, the manufacturer's inspection procedure may be used only if it verifies *all* components function properly. “Self-checking” equipment may not meet this requirement (only one “self-checking” device has been Missouri-approved to be tested without removal from the fill tube).

Walkthrough Inspections

10 CSR 26-2.037

The spill basin and fill area must be inspected and electronic release detection equipment must be checked every 30 days.

The tank top areas and sub-dispenser areas must be checked for leaks or other signs of a problem at least annually. In addition, groundwater and vapor monitoring equipment, and manual measuring devices for release detection (measuring stick) must be checked annually.



You may want to think about combining the annual check with the rest of these equipment inspections.

Release Detection – Equipment Testing

10 CSR 26-2.040

While testing your line leak detector each year is nothing new in Missouri, EPA's new rule requires tank monitoring equipment to be checked annually to make sure it is still operating properly. This is first due by Jan. 1, 2020.

If you are using an automatic tank gauge (ATG), the console and the float or probe will be inspected. Floats can have buildup that might hinder



movement. If you are using interstitial monitoring, the sensor may be removed and submerged in water to ensure it alarms.

Release Detection Methods

10 CSR 26-2.043

Vapor and Groundwater Monitoring

EPA's new regulation requires a new site assessment for any site wanting to continue using vapor or groundwater monitoring, as well as certification for the well installation. Due to the federal changes not being cost effective to maintain outdated methods, Missouri is proposing to eliminate these methods of release detection. In doing so, we will grant more time for compliance than EPA's original proposed regulation would have allowed.

Missouri's new proposal *would* allow the continued use of vapor monitoring when combined with a chemical marker and listed by the National Work Group on Leak Detection Evaluations as a tightness test.

At this time, the department is proposing to sunset use of these methods by **July 1, 2020**.

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operator training, the state has opted instead to:

- a) Acknowledge Missouri owners and operators already take responsibility for compliance at their facilities.
- b) Allow them to designate their A/B Operator as their lead Class C operator, taking responsibility for ensuring all Class C operators are properly trained.
- c) Offer an option for the Class A/B/C operator to certify they will understand the Class C training requirements and pick and implement a Class C training option that works for their company or organization.

Contact the department or the Fund for the appropriate paperwork to complete.

Statistical Inventory Reconciliation (SIR)

10 CSR 26-2.043(B)

EPA's regulations proposed some significant changes to SIR, including when the SIR must be returned to the owner/operator. You must have the report back by the **10th** of the following month. You will still be required to keep supporting data. SIR must be a quantitative method (a leak rate is calculated – not a pass/fail method).

Interior Linings – Not so Simple Anymore

10 CSR 26-2.021

All I need to line a tank is a mop and a bucket of paint, right? Wrong.

During the rash of upgrades in 1998, many “linings” were installed that did not meet any industry standard and failed rather quickly. Because of these ‘bad linings’ from fly-by-night companies, some states even eliminated lined tanks as an option.

Most lined tanks are over 30 years old and well beyond their original life expectancy/warranty. During the last rule change, owners and operators argued that the department should build rules allowing lined tanks remain as long as



Picture courtesy of Genesis Environmental Solutions

they could show the tank/lining systems were still functioning properly. Here in the “Show-Me” state, we agreed and passed regulations allowing tank systems proving to be functional to remain in use. Now, interior linings are not necessarily

just a single wall of lining material painted or sprayed onto the inside of a tank. Now, new products are available to make double-walled linings or according to UL, double-walled linings that are strong enough to contain product

without the support of the old outer tank. However, these new options do not fit neatly into the current regulations. Therefore, we are proposing new regulations to accommodate these new options. The proposed regulation would also provide owners an option to monitor between the two walls of a double-walled lining system. This interstitial monitoring could be used to satisfy not only the monthly leak detection requirements, but would also allow owners/operators to skip the five-year lining inspection!

Finally, the proposed rule also details what is needed in a lining inspection report, as well as certification requirements for interior lining installers.

EPA Regulations – When Will They Apply to You?

Missouri's underground storage tank (UST) regulatory program has “State Program Approval” from EPA. This makes a difference to you. Even though EPA has enacted their UST regulations, they are not immediately effective here. The department will have to adopt these new UST rules before any of them are effective in Missouri. Which means, the federal deadlines may not be the Missouri deadlines.

Missouri must enact the new requirements here and update our state program approval with EPA no later than Oct. 13, 2018; if we do not meet this deadline, EPA may withdraw our program, making their regulations effective here in Missouri.

What We Need Is You!

We need your experience, knowledge and willingness to provide input on all of these proposed regulations. We want to make these regulations work for the Missouri UST community.

If you would like to receive e-mail update on these regulations changes, contact heather.peters@dnr.mo.gov.

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